

CA1 L28

-61K02

3 1761 11767022 4



Government
Publications

Canada. Dept. of Labour.
Economics and Research
Branch

Shift work and shift
differentials in Canadian
manufacturing industries

HD
5128
A44



Government
Publications

Shift Work and Shift Differentials in Canadian Manufacturing Industries



LABOUR
MANAGEMENT
RESEARCH
SERIES

REPORT No. 2
1961

Canada
ECONOMICS AND RESEARCH BRANCH
DEPARTMENT OF LABOUR
OTTAWA

Labour-Management Research Series

No. 1 – Income Security Provisions in Canadian Manufacturing Industries. (1959)

No. 2 – Shift Work and Shift Differentials in Canadian Manufacturing Industries. (1961)

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1961

Price 25 cents Cat. No. L2-22/2

Labour Management
Research Series

SHIFT WORK AND SHIFT DIFFERENTIALS IN CANADIAN MANUFACTURING INDUSTRIES

— *A Study of the Importance of Shift Work in Canadian
Manufacturing Industries and the Extent and Nature
of Shift Differential Payments.*

Hon. Michael Starr
Minister

George V. Haythorne
Deputy Minister

IN CANADIAN BANKING AND FINANCIAL INSTITUTIONS

5128

A44



948414

Labour Management Research Series, Report No. 2.

ERRATA - Table 3 on page 8.

Under Establishments:

Col. 4 read as: Other Types of Differential.

Under Non-Office Employees:

Col. 1 read as: Cents per Hour Differential.

Col. 2 read as: Percentage Differential.

SHIFT WORK AND NIGHT DIFFERENTIALS
Management Research Series, Report No. 3.
A T A - Table 3 on page 3.
Under Establishment
Col. 3 read as: Other Type of Differential.
Col. 4 read as: Percentage Differential.
Col. 5 read as: Percentage Differential.


948414

FOREWORD

This study of shift work and shift differential practices is the second in a series of monographs in which it is planned to deal with a variety of topics of specific interest to labour and management. The statistical material for the study was obtained from the Survey of Working Conditions, but is presented in greater detail than it is feasible to include in the annual report Working Conditions in Canadian Industry.

This monograph program is being carried out by The Labour-Management Division of the Economics and Research Branch of the Department of Labour, under the direction of Dr. R. M. Adams. This study was prepared in the Working Conditions Research and Development Section of the Division by Mr. Ralph Davidson, under the supervision of Mr. F. J. McKendy. Acknowledgement is also made to Mr. J. B. Lane, Head of the Working Conditions Survey Section, and members of his staff, for their advice and assistance in the preparation and interpretation of statistical material.

W. R. Dymond, Director
Economics and Research Branch



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761117670224>

CONTENTS

	Page
INTRODUCTION.....	1
SHIFT WORK AND SHIFT DIFFERENTIALS....	3
Scope of Study.....	3
Summary of Findings.....	3
Extent of Shift Operations.....	3
Extent of Shift Differentials.....	7
Types of Shift Differentials.....	7
Size of Shift Differentials.....	9
Cents-per-Hour Differentials.....	9
Evening Shift.....	9
Night Shift.....	9
Percentage Differentials.....	14
Evening Shift.....	14
Night Shift.....	14
Uniform and Graduated Shift Differentials...	20

LIST OF TABLES

	Page
Table 1. Extent of Shift Work and Shift Differentials in Manufacturing, by Industry, April 1959	4
Table 2. Extent of Shift Work and Shift Differentials in Manufacturing, by Province, April 1959.....	5
Table 3. Types of Shift Differentials in Manufacturing, by Industry, April 1959.....	8
Table 4. Cents-per-Hour Differentials for Evening Shift in Manufacturing Industries, by Establishments, April 1959.....	10
Table 5. Cents-per-Hour Differentials for Evening Shift in in Manufacturing Industries, by Employees, April 1959	11
Table 6. Cents-per-Hour Differentials for Night Shift in Manufacturing Industries, by Establishment, April 1959	12
Table 7. Cents-per-Hour Differentials for Night Shift in Manufacturing Industries, by Employees, April 1959	13
Table 8. Percentage Differentials for Evening Shift in Manufacturing Industries, by Establishments, April 1959	15
Table 9. Percentage Differentials for Evening Shift in Manufacturing Industries, by Employees, April 1959	16
Table 10. Percentage Differentials for Night Shift in Manufacturing Industries, by Establishments, April 1959	17
Table 11. Percentage Differentials for Night Shift in Manufacturing Industries, by Employees, April 1959	18
Table 12. Comparison of Cents-per-Hour Differentials for Evening and Night Shifts in Selected Manufacturing Establishments, April 1959	19

INTRODUCTION

As undesirable as shift work may be to some employees, a great number of establishments in Canadian industry find it necessary or desirable to maintain either regular or seasonal operations on a shift basis. In many industries, notably in the production of steel, chemicals, paper, glass and rayon, technological considerations require that continuous operations be maintained. And in certain tertiary and public service industries, such as transportation, communications, and public utilities, services have to be provided on a "round-the-clock" basis.

Shift operations often become necessary where deadlines have to be met throughout the day and night, as in daily newspapers. And for most industries, when extra or seasonal workloads build up, it may prove more efficient and economical to employ an extra shift crew than to have the regular day crew work overtime.

In manufacturing industries where overhead and capital costs are high in relation to labour costs, shift work may prove to be the most effective way to achieve substantial economies in the utilization of expensive capital machinery. (1)

Shift work tends to disrupt an employee's social life as well as his normal family life. Irregular hours of work naturally interfere with both the sleeping and eating routines of the worker, and if rotating shift work is required an almost continual readjustment of daily habits is necessary. And often the shift worker is faced with special problems of transportation to and from the work place during the evening and night shifts.

Thus, in order to make shift work more acceptable the employer often has to offer compensating rewards to the shift worker. The most common form of recognition for shift work is extra pay, although it sometimes takes the form of the same pay for less time worked. (2)

There are workers who, for various reasons, prefer shift work to normal day work. Workers on evening and night shifts are able to pursue various day-time activities which could not be engaged in otherwise. This may hold a strong appeal for some individuals. Further, in some industries special social and recreational events are organized for shift workers and their families, thus diminishing, to some degree, the disadvantages imposed by inconvenient hours of work.

The objectionable features of shift work may sometimes be recognized in the payment of a high level of basic wages; however, the practice of paying differentials is the most common and also the most observable form of recognition for such work, and is the main focus of this analysis.

(1) F. P. Cook in his survey on Shift Work (London, 1954) says:
"Shift work allows intense economy of man-power and machine-power".

(2) For a description of the most common forms of shift premium payments. See the section on Types of Shift Differential, (page 7).

SHIFT WORK AND SHIFT DIFFERENTIALS

SCOPE OF THE STUDY

This report is based on information obtained from 7,900 manufacturing establishments who participated in the 1959 Survey of Working Conditions conducted by the Economics and Research Branch of the Canadian Department of Labour. These establishments employed more than 819,000 non-office workers at the April 1 survey date. This represents substantially complete coverage of all establishments in manufacturing in Canada having 15 or more employees.

SUMMARY OF FINDINGS

About one-third of all Canadian manufacturing plants covered by the survey, accounting for approximately two-thirds of the employees reported, had regular shift operations.

Differentials were paid for shift work in more than 80 per cent of the establishments, having regular shift operations; these establishments employed over 90 per cent of the non-office employees in plants on regular shift work.

The cents-per-hour differential was the most common form of premium payment for shift work in almost all manufacturing industries the notable exception to this being in printing and publishing where the use of a percentage differential was found to be prevalent.

On evening shift work the most common cash differentials reported were found to be five cents and seven cents, and on night-shift work ten cents and seven cents in that order of prevalence. The payment of a higher differential for night shift than for evening shift was a majority practice.

On the basis of numbers of establishments, 15 per cent was the most frequently reported percentage form of shift differential payment for both evening and night shifts. In terms of the workers employed, a percentage differential of less than 10 per cent was most common for evening shift and 10 per cent for night shift.

EXTENT OF SHIFT OPERATIONS

The survey revealed that regular shift operations are not a majority condition in Canadian manufacturing industries. Only one manufacturing establishment out of three responding to the survey reported regular shift work, but these establishments employed in total almost two-thirds of all non-office employees in manufacturing.

Of the approximately 2,500 establishments that reported having regular shift operations, four-fifths paid shift differentials; these plants employed 93 per cent of the non-office employees in establishments having regular shift operations.

Table 1 (see page 4) shows the extent of shift work and shift differentials in 17 manufacturing industries and illustrates that there is considerable variation among industries in the incidence of regular shift operations. In leather products and clothing, for example, the incidence of shift work is lowest. In the rubber, paper, petroleum and coal products industries, on the other hand, about two-thirds of the establish-

TABLE 1 - EXTENT OF WORK AND SHIFT DIFFERENTIALS IN MANUFACTURING, BY INDUSTRY, APRIL 1959

	Establishments Covered	Proportion of Establishments		Non-Office Employees Covered	Proportion of Employees in Establishments	
		Reporting Regular Shift Operations	Reporting Shift Differentials		Reporting Regular Shift Operations	Reporting Shift Differentials
	No.	%	%	No.	%	%
Food and Beverages.....	1, 372	30. 8	22. 2	110, 337	59. 1	49. 6
Tobacco and Tobacco Products	21	42. 8	28. 5	10, 178	34. 3	22. 8
Rubber Products.....	48	72. 9	68. 7	14, 077	95. 9	95. 3
Leather Products.....	223	8. 5	5. 8	20, 369	16. 5	13. 4
Textiles (except clothing).....	321	51. 4	42. 4	45, 976	85. 2	77. 2
Clothing (textile and fur).....	921	9. 1	5. 8	65, 557	16. 3	12. 0
Wood Products.....	988	20. 5	15. 0	63, 373	46. 9	40. 9
Paper Products.....	322	63. 3	57. 1	69, 979	91. 4	87. 7
Printing, Publishing and Allied Industries ..	459	35. 9	34. 6	29, 824	66. 2	64. 1
Iron and Steel Products.....	1, 032	35. 5	32. 4	124, 565	75. 5	73. 4
Transportation Equipment	620	26. 4	18. 2	95, 109	56. 0	51. 6
Non-ferrous Metal Products.....	241	41. 9	37. 8	38, 219	85. 8	83. 5
Electrical Apparatus and Supplies.....	249	39. 3	35. 3	46, 136	73. 3	70. 6
Non-metallic Mineral Products.....	288	53. 8	43. 7	23, 948	84. 1	78. 6
Products of Petroleum and Coal.....	63	66. 7	63. 5	9, 713	95. 1	93. 9
Chemical Products.....	435	44. 6	41. 1	34, 103	71. 7	69. 7
Miscellaneous Manufacturing.....	299	20. 7	17. 7	17, 938	43. 1	40. 6
Manufacturing Total.....	7, 902	31. 5	26. 1	819, 401	64. 0	59. 4

TABLE 2 - EXTENT OF SHIFT WORK AND SHIFT DIFFERENTIALS IN MANUFACTURING, BY PROVINCE, APRIL 1959

	Establishments Covered	Proportion of Establishments		Non-Office Employees Covered	Proportion of employees in Establishments	
		Reporting Regular Shift Operations	Reporting Shift Differentials		Reporting Regular Shift Operations	Reporting Shift Differentials
	No.	%	%	No.	%	%
Newfoundland.....	57	22.8	10.5	5,586	54.8	43.4
Prince Edward Island.....	12	-	-	571	-	-
Nova Scotia.....	213	24.4	13.6	18,728	61.3	52.1
New Brunswick.....	143	21.0	14.0	11,981	49.5	42.8
Quebec.....	2,298	26.5	21.6	260,933	59.9	55.6
Ontario.....	3,573	34.8	29.9	404,024	67.4	63.4
Manitoba.....	389	28.5	22.1	25,449	49.2	42.5
Saskatchewan.....	178	29.8	23.6	7,807	55.4	50.0
Alberta.....	326	32.2	24.5	21,905	52.2	43.0
British Columbia.....	710	38.0	32.8	62,330	75.2	71.2
Canada*.....	7,899	31.5	26.0	819,314	64.0	59.4

* Differences between these figures and those for total manufacturing (Table 1) can be accounted for by the fact that the figures for Canada in this table do not include the Northwest Territories.

ments reported regular shift work and these establishments accounted for about 90 per cent of the employees in their respective industries.

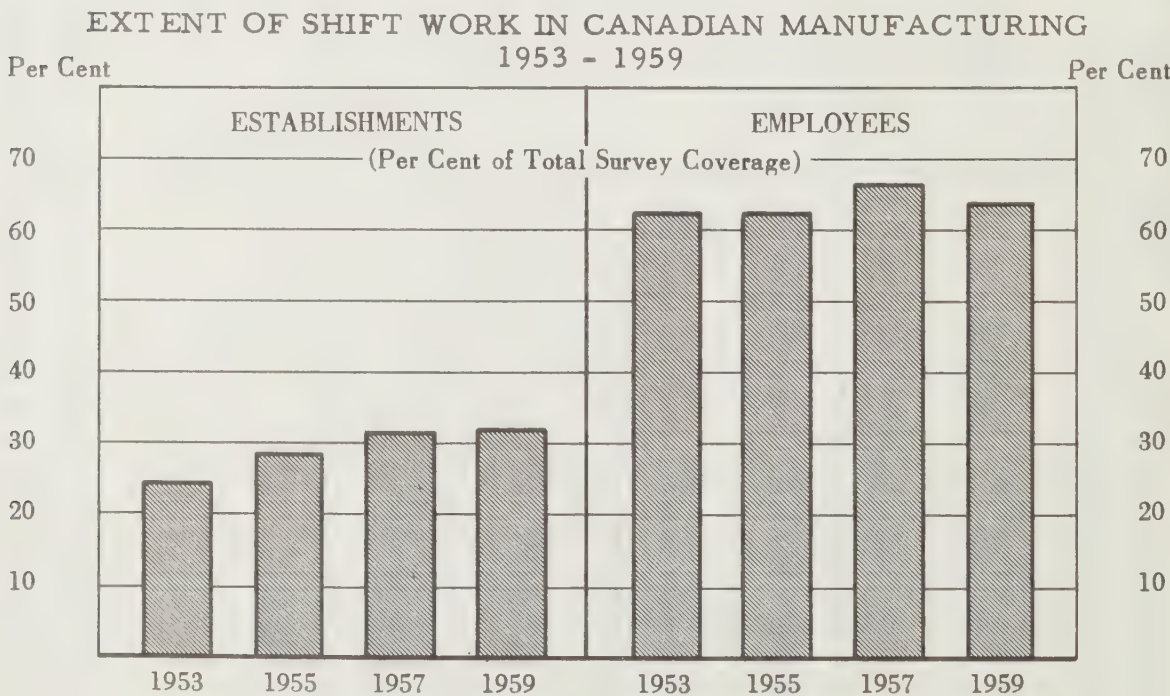
The extent of shift work by province is analysed in Table 2 (see page 5). British Columbia and Ontario have the highest incidence of shift work among the provinces and regular shift operations are least prevalent in the Atlantic provinces.

The incidence of shift work in Quebec is slightly below the mean for all Canada, possibly because of the concentration in this province of the clothing industries. Quebec has important pulp and paper and iron and steel industries, however, both of which are characterized by continuous operations. The higher incidence of shift work in Ontario can partly be accounted for by the important role the iron and steel industries play in this province.

The relatively high incidence of shift work in manufacturing in the three Prairie provinces can largely be attributed to the increasing number of manufacturers of iron and steel products and products of petroleum and coal in these areas and particularly in Alberta. The high figure of 38 per cent in British Columbia is, in part, due to the location in that province of manufacturing concerns in wood products, pulp and paper, and food and beverages.

Information from previous surveys of working conditions conducted by the Economics and Research Branch in 1953, 1955, 1957 on the extent of shift work in Canadian manufacturing industries, may be compared with data for 1959. The findings of these surveys regarding shift work have been condensed and are shown in the chart below.

Each successive survey indicates a slight increase in the proportion of establishments having regular shift operations, whereas the proportion of employees in these establishments have remained relatively unchanged over the years. The small decrease from 1957 to 1959 in the proportion of employees in establishments having regular shift work is attributed to the inclusion in the 1959 survey of a larger number of smaller establishments with correspondingly fewer employees.



EXTENT OF SHIFT DIFFERENTIALS ⁽¹⁾

As illustrated in Tables 1 and 2 (see pages 4-5) the payment of shift differentials is common practice in manufacturing industries in which shift work is prevalent. In plants manufacturing rubber products and petroleum and coal products there is scarcely any difference in the proportions of employees in plants reporting shift work and those reporting the payment of shift differentials. And in all other industries in which shift work is common a high degree of correspondence between regular shift work and the payment of shift differentials is generally found.

Table 2 shows that the proportion of establishments that pay shift differentials ranged from about 10 per cent in Newfoundland to almost 33 per cent in British Columbia. However, the proportions of employees in plants reporting shift differentials ranged from about 43 per cent in Newfoundland, New Brunswick, Manitoba and Alberta to 71 per cent in British Columbia.

TYPES OF SHIFT DIFFERENTIALS

There are three main types (2) of shift differential payments and the incidence of these by industry is illustrated in Table 3 (see page 8).

The survey revealed that the "cents-per-hour" type of shift differential payment was most common. This normally takes the form of a fixed supplementary amount in addition to the day-shift rate of pay for each hour of evening or night-shift work. In a given plant it is usual for the same amount (e. g. , 5¢ per hour) to apply to all workers on a given shift regardless of the level of their wage rates. Of all manufacturing plants reporting differentials, 1,732 or 85 per cent indicated the payment of the "cents-per-hour" types of shift differential. Employees in these plants numbered 402,000, or 84 per cent of the total in all plants reporting differentials.

The next most prevalent type of shift premium payment in manufacturing is the percentage differential, which is a supplementary amount paid for each hour of evening or night-work calculated as a percentage of the day-shift rate. The unique feature of this type of differential is that it is related directly to the wage of the individual worker. The percentage type of shift differential payment was reported by about one-tenth of all establishments reporting differentials of any kind and these establishments employed more than 65,000 workers. Only in the printing and publishing industry, however, were percentage differentials more prevalent than the "cents-per-hour" type.

(1) F. P. Cook in Shift Work, (London, 1955), uses the term "inconvenience payment" instead of differential payment because, as he says, "in industrial usage a differential payment has come to mean a reward for a particular skill or responsibility, whereas the enhanced remuneration of shiftworkers is due to the irregularity and inconvenience of their hours of work".

(2) The type and size of shift differentials are often bargained for by the employees and written up in their union contracts. See Off-Shift Bonus Clauses in Mining and Manufacturing, prepared by the Research Department, Canadian Labour Congress, Ottawa, June 1960.

TABLE 3 - TYPES OF SHIFT DIFFERENTIALS IN MANUFACTURING, BY INDUSTRY, APRIL 1959

	Establishments				Non-Office Employees			
	Cents per Hour Differential	Percentage Differential	Time Differential	Percentage of Differential	Other Types of Differential	Cents per Hour Differential	Time Differential	Other Types of Differential
	No.	No.	No.	No.	No.	No.	No.	No.
Food and Beverages.....	288	6	3	4	52,434	1,426	193	501
Tobacco and Tobacco Products.....	6	-	-	-	2,325	-	-	-
Rubber Products.....	29	2	1	-	12,613	705	50	-
Leather Products.....	12	1	-	-	2,169	554	-	-
Textiles (except clothing).....	106	27	2	-	23,049	12,196	161	-
Clothing (textile and fur).....	39	10	2	2	4,831	2,209	694	121
Wood Products.....	139	-	7	1	25,382	-	425	65
Paper Products.....	160	21	1	1	58,018	2,969	164	36
Printing, Publishing and Allied Industries.....	61	87	3	7	7,390	10,143	148	1,372
Iron and Steel Products.....	282	17	34	1	84,520	3,341	3,533	51
Transportation Equipment.....	79	14	14	5	25,761	19,219	2,485	873
Non-ferrous Metal Products.....	85	2	2	1	25,596	503	87	29
Electrical Apparatus and Supplies.....	72	12	1	1	21,407	10,865	130	64
Non-metallic Mineral Products.....	117	1	6	1	18,411	52	253	26
Products of Petroleum and Coal.....	40	-	-	-	9,118	-	-	-
Chemical Products.....	171	5	1	1	23,300	360	25	38
Miscellaneous Manufacturing.....	46	6	1	-	6,290	979	21	-
Manufacturing Total.....	1,732	211	78	25	402,614	65,521	8,369	3,176

Time differentials rank third in order of incidence in manufacturing. (1) Where this type of differential is in effect, the evening or night shift worker receives the same amount of pay as the worker on the day shift, but works a shorter period to earn it. A typical example is "8 hours' pay for 7 1/2 hours' work". Time differentials for shift work were reported by manufacturing establishments accounting for about 2 per cent of the total employees in plants reporting differentials of all types; only in the iron and steel products and transportation equipment industries was the incidence of this type of shift differential payment of any significance.

SIZE OF SHIFT DIFFERENTIALS

An indication of the size of shift differentials in manufacturing industries is given in Tables 4 to 11 of this report. These tables show distributions of establishments and non-office employees according to the differentials paid on evening and night shifts. Tables 4 to 7 (see pages 10 - 13) deal with cents-per-hour differentials, while Tables 8 to 11 (see pages 15 - 18) deal with percentage shift differentials.

CENTS-PER-HOUR DIFFERENTIALS

Evening Shift

For manufacturing as a whole, five and seven cents per hour were the most common evening shift differentials in establishments covered by the survey. Respectively, these differentials applied to establishments accounting for 24 and 27 per cent of employees in establishments reporting cents-per-hour differentials. A five-cent-per-hour evening shift differential was paid in 402 of the establishments paying differentials for evening shifts and seven cents was paid in 304 establishments.

An evening shift premium payment of six cents was the most common in the wood products industry; eight cents was predominant in the manufacture of the products of petroleum and coal. In the food and beverages, transportation equipment, and electrical apparatus and supplies industries the most prevalent evening-shift premium payment was ten cents per hour. In the printing, publishing and allied industries most of the establishments reported an evening-shift differential of fifteen cents or more per hour.

Night Shift

The modal cash differential for night-shift work in manufacturing as a whole was ten cents per hour; 384 establishments accounting for about 25 per cent of the non-office employees in manufacturing reported the payment of a ten-cent-per-hour night-shift differential (see Table 6). Seven cents was the most prevalent night-shift differential payment in terms of numbers of plants reporting.

-
- (1) Differentials which fall outside the three main categories dealt with above are classified under "other". The survey did not seek further details on this group, but it is known that cases where "flat amount per shift" was reported are included here. The group would also include some cases where differentials do not apply in the usual manner, but where a higher basic rate applies to all shift workers. Combinations of the more common types would also fall into this category.

TABLE 4 - CENTS-PER-HOUR DIFFERENTIALS FOR EVENING SHIFT IN MANUFACTURING INDUSTRIES, BY ESTABLISHMENTS, APRIL 1959

	Establishments Reporting Cents per Hour Differentials	Cents per Hour										15¢ or more	No Information
		Less than 5¢	5¢	6¢	7¢	8¢	9¢	10¢	12¢	13¢			
		(Number of Establishments)											
Food and Beverages.....	288	19	55	19	46	22	10	38	-	-	19	60	
Tobacco and Tobacco Products.....	6	-	2	2	-	-	1	-	-	-	-	1	
Rubber Products.....	29	-	9	-	14	-	1	2	-	-	-	3	
Leather Products.....	12	-	4	1	1	-	-	-	-	-	-	6	
Textiles (except clothing)	106	24	30	2	10	1	-	5	-	-	1	33	
Clothing (textile and fur).....	39	9	12	-	2	-	-	-	-	-	1	15	
Wood Products.....	139	25	24	56	7	2	-	5	-	1	-	19	
Paper Products.....	160	11	91	10	21	4	-	10	1	-	4	8	
Printing, Publishing and Allied Industries.	61	2	-	-	-	-	-	3	5	3	24	24	
Iron and Steel Products.....	282	4	38	9	96	29	11	47	2	-	4	42	
Transportation Equipment.....	79	2	7	3	13	6	3	18	2	2	9	14	
Non-ferrous Metal Products.....	85	6	27	4	14	11	4	7	1	-	1	10	
Electrical Apparatus and Supplies.....	72	-	14	1	10	7	9	25	-	-	1	5	
Non-metallic Mineral Products	117	20	25	8	9	25	1	11	1	-	1	16	
Products of Petroleum and Coal.....	40	-	1	-	4	33	-	-	-	-	-	2	
Chemical Products	171	6	46	18	51	19	12	9	2	-	-	8	
Miscellaneous Manufacturing	46	3	17	1	6	3	1	5	-	-	1	9	
Manufacturing Total	1,732	131	402	134	304	162	53	185	14	6	66	275	

TABLE 5 - CENTS-PER-HOUR DIFFERENTIALS FOR EVENING SHIFT IN MANUFACTURING INDUSTRIES, BY EMPLOYEES, ⁽¹⁾ APRIL 1959

	Employees in Establishments Reporting Cents per Hour Differentials	Cents per Hour										15¢ or more	No Information	
		Less than 5¢	5¢	6¢	7¢	8¢	9¢	10¢	12¢	13¢				

(1) The percentages in the table refer to the total non-office employees in establishments reporting the stated differentials, and not those actually working on shifts and receiving these differentials.

* Less than 0.1

TABLE 6 - CENTS PER HOUR DIFFERENTIALS FOR NIGHT SHIFT IN MANUFACTURING INDUSTRIES, BY ESTABLISHMENTS, APRIL 1959

	Establishments Reporting Cents per Hour Differentials	Cents per Hour												15¢ or more	No Informa- tion
		Less than 5¢	5¢	6¢	7¢	8¢	9¢	10¢	11¢	12¢	13¢	14¢			
													(Number of Establishments)		
Food and Beverages	288	9	40	20	36	19	17	72	8	7	-	1	31	28	
Tobacco and Tobacco Products.....	6	-	3	2	-	-	-	-	-	1	-	-	-	-	
Rubber Products.....	29	-	4	1	4	2	2	12	-	-	-	-	-	4	
Leather Products.....	12	-	6	-	4	-	-	1	-	-	-	-	-	1	
Textiles (except clothing)	106	1	12	6	9	9	8	46	-	-	-	2	2	11	
Clothing (textile and fur)	39	2	11	1	2	5	4	8	-	-	-	-	-	6	
Wood Products.....	139	20	16	36	8	3	3	4	-	-	1	-	-	48	
Paper Products.....	160	2	7	7	23	61	7	30	-	7	-	-	5	11	
Printing, Publishing and Allied Industries	61	1	-	-	-	-	-	3	-	4	2	-	23	28	
Iron and Steel Products.....	282	1	22	2	43	15	43	58	2	18	-	1	7	70	
Transportation Equipment.....	79	-	5	3	5	4	2	21	3	4	2	-	3	27	
Non-ferrous Metal Products.....	85	-	16	-	16	3	9	25	-	1	-	-	-	15	
Electrical Apparatus and Supplies.....	72	-	4	-	7	1	5	26	2	8	-	-	1	18	
Non-metallic Mineral Products.....	117	8	13	14	13	8	4	26	3	13	-	1	6	8	
Products of Petroleum and Coal.....	40	-	1	-	1	1	1	-	-	-	-	2	32	2	
Chemical Products.....	171	2	8	5	28	25	21	36	5	11	3	9	6	12	
Miscellaneous Manufacturing.....	46	1	5	-	6	-	2	16	-	3	-	-	4	9	
Manufacturing Total	1,732	47	173	97	206	156	128	384	23	77	8	16	120	298	

TABLE 7 - CENTS PER HOUR DIFFERENTIALS FOR NIGHT SHIFT IN MANUFACTURING INDUSTRIES, BY EMPLOYEES, (1) APRIL 1959

	Employees in Establishments Reporting Cents per Hour Differentials	Cents per Hour											15¢ or more	No information			
		Less than 5¢	5¢	6¢	7¢	8¢	9¢	10¢	11¢	12¢	13¢	14¢					
					(Percentage of Employees)												
Food and Beverages	52,434	3.5	9.4	7.0	9.5	4.9	9.1	38.6	4.6	2.1	-	-	5.1	6.2			
Tobacco and Tobacco Products	2,325	-	54.6	32.8	-	-	-	-	-	12.6	-	-	-	-			
Rubber Products.....	12,613	-	12.2	4.2	10.5	2.6	7.7	57.9	-	-	-	-	-	4.7			
Leather Products.....	2,169	-	31.6	-	43.3	-	-	19.3	-	-	-	-	-	5.8			
Textiles (except clothing).....	23,049	0.9	5.1	8.1	13.2	10.3	16.4	34.2	-	-	-	1.6	2.5	7.7			
Clothing (textile and fur) ..	4,831	7.3	23.9	1.0	3.6	13.0	11.0	29.8	-	-	-	-	-	10.3			
Wood Products	25,382	7.6	9.5	49.6	4.0	2.1	0.9	1.5	-	-	1.1	-	-	23.6			
Paper Products.....	58,018	0.5	2.5	1.6	14.1	57.3	5.5	14.2	-	2.1	-	-	1.0	1.0			
Printing, Publishing and Allied Industries	7,390	5.8	-	-	-	-	-	1.6	-	3.2	3.1	-	53.3	33.0			
Iron and Steel Products	84,520	0.1	3.1	0.1	20.0	3.7	41.3	12.8	0.4	6.4	-	0.1	2.4	9.6			
Transportation Equipment	25,761	-	4.2	3.7	7.7	5.8	4.9	20.0	2.2	6.9	2.7	-	30.5	11.5			
Non-ferrous Metal Products	25,596	-	5.6	-	15.2	1.0	12.7	60.7	-	0.1	-	-	-	4.7			
Electrical Apparatus and Supplies	21,407	-	1.5	-	5.8	1.5	3.8	49.0	2.9	22.9	-	-	0.9	11.7			
Non-metallic Mineral Products	18,411	2.5	6.1	20.5	10.6	2.3	1.5	22.7	1.4	13.2	-	1.7	3.1	14.4			
Products of Petroleum and Coal.....	9,118	-	3.0	-	1.0	1.4	5.0	-	-	-	-	1.0	85.8	2.8			
Chemical Products	23,300	0.3	1.6	1.1	4.5	12.4	10.6	28.7	6.3	10.4	1.1	16.2	3.5	3.3			
Miscellaneous Manufacturing	6,290	0.3	10.2	-	15.0	-	5.4	25.2	-	3.6	-	-	17.9	22.4			
Manufacturing Total	402,614	1.4	5.6	6.3	11.8	12.0	14.2	25.0	1.4	5.0	0.4	1.2	7.0	8.7			

(1) The percentages in the table refer to the total non-office employees in establishments reporting the stated differentials and not those actually working on shifts and receiving these differentials.

In 10 of the 17 manufacturing groups listed, the modal night-shift differential in terms of establishments was ten cents per hour. For manufacturing as a whole, nine cents was the next most common night shift differential payment; this rate of premium payment for night shift was reported by plants accounting for about 14 per cent of employment in those paying cents-per-hour differentials.

Only two industrial groups indicated shift premium payments of fifteen cents or more as common for night-shift work; these were printing and publishing and the manufacture of products of petroleum and coal. In printing and publishing, 53 per cent of the employees surveyed were in establishments which paid night-shift differentials of fifteen cents or more per hour and in the petroleum and coal products industry those with 86 per cent of the employees surveyed were in establishments reporting night-shift differentials of this magnitude.

PERCENTAGE DIFFERENTIALS

Evening Shift

Tables 8 and 9 show the distribution of percentage differentials for evening shift work in 17 manufacturing groups. A 15-per-cent differential was paid in 77 establishments; however, these were mainly in the printing, publishing and allied industries in which the payment of percentage differentials was most common.

An evening shift differential of "more than 15 per cent" was in effect in 63 establishments; an evening shift premium of "less than 10 per cent", the next heaviest concentration, was reported by 42 establishments. However, these 42 establishments accounted for a larger proportion of total employment than the 63 establishments paying more than 15 per cent.

In the electrical apparatus and supply industry six establishments out of 12 reported a 10-per-cent differential for evening shift work. However, these 6 establishments accounted for over 80 per cent of the workers in plants reporting the percentage type of differentials. In the case of six other groups, 69 per cent or more of the listed employees were in establishments where the differential reported was "less than 10 per cent".

Night Shift

Tables 10 and 11 present distribution of establishments and employees according to percentage differentials paid for night shift work. Here, as for the evening shift, the main concentration in terms of establishments was at a 15-per-cent differential; and again, the printing, publishing and allied industries were dominant in this group.

The modal percentage differential for night shift in manufacturing as a whole was 10 per cent. This rate of differential payment applied in 42 establishments employing almost half of all employees in establishments with a provision for the payment of percentage differentials for night-shift work.

In 4 industries, textiles, paper products, printing and non-metallic mineral products, differentials of 15 per cent were most common for night shift work; in only 3 industries were differentials of less than 10 per cent predominant, namely, rubber products, non-ferrous metal products and chemical products.

TABLE 8 - PERCENTAGE DIFFERENTIALS FOR EVENING SHIFT IN MANUFACTURING INDUSTRIES, BY ESTABLISHMENTS, APRIL 1959

	Establishments Reporting Percentage Differentials	Percentage Differentials			
		Less than 10%	10%	11-14%	15%
		(Number of Establishments)			
Food and Beverages	6	1	-	-	1
Tobacco and Tobacco Products	-	-	-	-	-
Rubber Products	2	2	-	-	-
Leather Products.....	1	1	-	-	-
Textiles (except clothing)	27	9	4	-	-
Clothing (textile and fur)	10	1	2	-	-
Wood Products	-	-	-	-	-
Paper Products	21	1	-	-	12
Printing, Publishing and Allied Industries.....	87	3	2	2	62
Iron and Steel Products	17	6	5	2	-
Transportation Equipment	14	6	1	2	-
Non-ferrous Metal Products	2	2	-	-	-
Electrical Apparatus and Supplies	12	5	6	-	-
Non-metallic Mineral Products	1	-	-	-	1
Products Of Petroleum and Coal.....	-	-	-	-	-
Chemical Products	5	3	1	-	1
Miscellaneous Manufacturing	6	2	2	-	-
Manufacturing Total	211	42	23	6	77
					63

TABLE 9 - PERCENTAGE DIFFERENTIALS FOR EVENING SHIFT IN MANUFACTURING INDUSTRIES, BY EMPLOYEES, ⁽¹⁾ APRIL 1959

	Employees in Establishments Reporting Percentage Differentials	Percentage Differentials				More than 15%
		Less than 10%	10%	11-14%	15%	
			(Percentage of Employees)			
Food and Beverages	1,426	4.8	-	-	3.0	92.1
Tobacco and Tobacco Products	-	-	-	-	-	-
Rubber Products	705	100.0	-	-	-	-
Leather Products	554	100.0	-	-	-	-
Textiles (except clothing).....	12,196	69.0	6.6	-	-	24.3
Clothing (textile and fur).....	2,209	7.3	35.3	-	-	57.4
Wood Products.....	-	-	-	-	-	-
Paper Products.....	2,969	2.9	-	-	72.3	24.8
Printing, Publishing and Allied Industries	10,143	7.4	1.2	3.4	74.1	14.0
Iron and Steel Products	3,341	43.1	16.4	14.3	-	26.2
Transportation Equipment	19,219	80.7	0.1	0.8	-	18.3
Non-ferrous Metal Products.....	503	100.0	-	-	-	-
Electrical Apparatus and Supplies.....	10,865	18.4	80.7	-	-	0.9
Non-metallic Mineral Products....	52	-	-	-	100.0	-
Products of Petroleum and Coal	-	-	-	-	-	-
Chemical Products	360	77.2	6.7	-	16.1	-
Miscellaneous Manufacturing.....	979	27.5	54.2	-	-	18.3
Manufacturing Total.....	65,521	47.0	17.7	1.5	15.0	18.9

TABLE 10 - PERCENTAGE DIFFERENTIALS FOR NIGHT SHIFT IN MANUFACTURING INDUSTRIES, BY ESTABLISHMENTS, APRIL 1959

	Establishments Reporting Percentage Differentials	Percentage Differentials					More than 15%	No Information
		Less than 10%	10%	11-14%	15%			
		(Number of Establishments)						
Food and Beverages.....	6	-	2	-	-	-	4	
Tobacco and Tobacco Products	-	-	-	-	-	-	-	
Rubber Products.....	2	1	-	-	-	-	1	
Leather Products.....	1	-	-	-	-	-	1	
Textiles (except clothing).....	27	4	14	-	6	2	1	
Clothing (textile and fur).....	10	1	8	-	-	-	1	
Wood Products.....	-	-	-	-	-	-	-	
Paper Products.....	21	-	3	-	12	1	5	
Printing, Publishing and Allied Industries. ...	87	1	1	1	45	-	39	
Iron and Steel Products	17	4	2	3	-	-	8	
Transportation Equipment	14	2	5	1	-	-	6	
Non-ferrous Metal Products	2	2	-	-	-	-	-	
Electrical Apparatus and Supplies.	12	4	4	-	-	1	3	
Non-metallic Mineral Products.....	1	-	-	-	1	-	-	
Products of Petroleum and Coal.....	-	-	-	-	-	-	-	
Chemical Products.....	5	1	2	-	1	-	1	
Miscellaneous Manufacturing.....	6	-	1	-	1	-	4	
Manufacturing Total.....	211	20	42	5	66	4	74	

TABLE 11 - PERCENTAGE DIFFERENTIALS FOR NIGHT SHIFT IN MANUFACTURING INDUSTRIES, BY EMPLOYEES, APRIL 1959

	Employees in Establishments Reporting Percentage Differentials	Percentage Differentials					More than 15%	No Information
		Less than 10%	10%	11-14%	15%	(Percentage of Employees)		
Food and Beverages.....	1, 426	-	56.7	-	-	-	-	43.3
Tobacco and Tobacco Products.....	-	-	-	-	-	-	-	-
Rubber Products.....	705	82.6	-	-	-	-	-	17.4
Leather Products.....	554	-	-	-	-	-	-	100.0
Textiles (except clothing).....	12, 196	8.9	43.7	-	44.4	-	2.6	0.4
Clothing (textile and fur).....	2, 209	7.3	87.7	-	-	-	-	5.0
Wood Products.....	-	-	-	-	-	-	-	-
Paper Products.....	2, 969	-	8.5	-	80.9	-	0.5	10.1
Printing, Publishing and Allied Industries....	10, 143	6.0	0.7	0.9	66.9	-	-	25.5
Iron and Steel Products.....	3, 341	29.2	12.2	35.8	-	-	-	22.7
Transportation Equipment.....	19, 219	6.3	80.6	11.6	-	-	-	1.4
Non-ferrous Metal Products.....	503	100.0	-	-	-	-	-	-
Electrical Apparatus and Supplies.....	10, 865	13.1	66.5	-	-	-	0.9	19.5
Non-metallic Mineral Products.....	52	-	-	-	100.0	-	-	-
Products of Petroleum and Coal.....	-	-	-	-	-	-	-	-
Chemical Products.....	360	52.2	25.0	-	16.1	-	-	6.7
Miscellaneous Manufacturing.....	979	-	39.3	-	7.8	-	-	53.0
Manufacturing Total.....	65, 521	10.3	48.8	5.4	22.6	-	0.7	12.3

TABLE 12 - COMPARISON OF CENTS PER HOUR DIFFERENTIALS FOR EVENING AND NIGHT SHIFTS IN
SELECTED MANUFACTURING ESTABLISHMENTS, APRIL 1959

Evening Shift Differentials (Cents per Hour)	Number of Establishments	Night Shift Differentials (Cents per Hour)											
		Less than 5¢	5¢	6¢	7¢	8¢	9¢	10¢	11¢	12¢	13¢	14¢	15¢ or More
Less than 5¢	105	32	18	31	5	4	5	10	-	-	-	-	-
5¢	323	-	77	3	71	69	8	93	-	-	-	-	2
6¢	98	-	-	44	4	26	12	3	3	6	-	-	-
7¢	259	-	-	-	91	10	56	75	4	5	2	16	-
8¢	143	-	-	-	-	25	6	44	9	17	-	-	42
9¢	46	-	-	-	-	-	26	4	6	9	1	-	-
10¢	123	-	-	-	-	-	-	81	1	27	-	1	13
11¢	-	-	-	-	-	-	-	-	-	-	-	-	-
12¢	9	-	-	-	-	-	-	-	-	7	-	-	2
13¢	4	-	-	-	-	-	-	-	-	-	4	-	-
14¢	-	-	-	-	-	-	-	-	-	-	-	-	-
15¢ or More.....	33	-	-	-	-	-	-	-	-	-	-	-	33
Total	1,143	32	95	78	171	134	113	310	23	71	7	17	92

UNIFORM AND GRADUATED SHIFT DIFFERENTIALS

In some establishments the amount of shift premium payment on evening and night shifts was the same. In others, a higher differential was paid for the night shift than for evening shift. An analysis of the patterns of shift differential payments in 1,143 establishments that reported both evening and night shift differentials in cents-per-hour revealed that in 63 per cent of these establishments differentials were higher for the night shift than for the evening shift.

Table 12 (see page 19) gives a cross distribution of these 1,143 establishments according to the relative amounts of differential reported for evening and night shifts. Establishments reporting specified differentials for evening shift (column 2) are redistributed according to the differentials which they paid for the night shift. It may be observed that of the 105 plants, which paid a differential of less than five cents per hour for evening shift, all but 32 reported a higher differential for night-shift work. Further, all but 77 of the 323 establishments, which paid five cents' differential for evening shift, reported a higher differential (usually seven, eight, or ten cents) for night shift. This pattern continues in establishments which paid six, seven and eight cents for evening shift -- that is, the majority of these reported a higher night shift differential than was paid for evening work. However, the table also shows that the majority of establishments which reported differentials for evening shift of nine cents or more did not pay an increased differential for night-shift work.

NOTES

NOTES

Government
Publications

1/5 NG 28/6/66

Government
Publications

~~ND~~
~~5128~~
~~A44~~

Government
Publications

Canada. Dept. of Labour.
Economics and Research
Branch

Shift work and shift
differentials in Canadian
manufacturing industries

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

DECATALOGUED

